

**ABSTRACT****MULTIPLE DELAY LINE BASED ON AWG AND DIFFERENT SECTIONS OF  
A DISPERSIVE OPTICAL MEDIUM**

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Multiple delay line based on AWG with a feedback configuration by means of sections of a dispersive optical medium, in which, due to the effect of the dispersion of the sections of the dispersive optical medium, the use of simultaneous multiple wavelengths (WDM) allows a large number of delays to  
10 be achieved, that can be optically varied by means of the individual or joint tuning of the multiple wavelengths. The application of the present invention is in any field in which it is necessary to obtain a large number of delays for example, such as occurs in the field of optical shaping of beams for antenna grouping. Other fields of application are analogue-digital optical converters, optical time  
15 division multiplexing (OTDM) or the optical systems based on code multiplexing (CDMA).